

## CLAIM AMENDMENTS

1-11. (Previously Cancelled)

12. **(Currently Amended)** A method for automated language recognition of words from different languages said method embodied as computer program instructions encoded in tangible, non-transitory computer readable media associated with a mobile device and comprising the steps of:

(a) loading a phoneme set associated with a language specified as a mother tongue into a mother tongue language recognizer;

(b) for each of a plurality of words, determining phonetic transcripts for the word for  $N$  various languages not specified as the mother tongue to generate  $N$  first phoneme sequences for the word corresponding to  $N$  first pronunciation variants, each of the  $N$  first phoneme sequences formed from phonemes associated with one of the  $N$  different languages;

(c) determining a phoneme map by mapping the generated first phoneme sequences of each of said  $N$  languages to a relevant phoneme set of the mother tongue;

(d) for each of the plurality of words, applying the phoneme map to each of the  $N$  first phoneme sequences for that word in order to translate the  $N$  first phoneme sequences into  $N$  second phoneme sequences, each of the  $N$  second phoneme sequences formed from phonemes associated with the mother tongue language,

wherein each of the  $N$  first phoneme sequences of the  $N$  various language is translated into a corresponding second phoneme sequence of the mother tongue language (a) regardless of whether the mobile device includes a speech model for each of the  $N$  various languages, and (b) regardless of whether the mother tongue language is the most acoustically similar to each of the  $N$  various languages, with respect to the respective first and second phoneme sequences, and

such that for each word, two different phonetic transcripts are generated for each of the  $N$  different languages, including (1) the  $N$  first phoneme sequences for the word, each formed from

phonemes associated with one of the  $N$  different languages, and (2) the  $N$  second phoneme sequences for the word, each formed by applying the phoneme map to translate one of the  $N$  first phoneme sequences formed from phonemes associated with one of the  $N$  different languages into a sequence of phonemes associated with the mother tongue language; and

(e) processing said  $N$  second phoneme sequences with the phoneme set associated with the language specified as the mother tongue to identify at least one of a matching word and a similar word.

13. (Previously Presented) The method according to Claim 12, further comprising a step of adding the  $N$  second phoneme sequences for each word in a language recognition vocabulary located in the mother tongue language recognizer.

14. (Previously Presented) The method according to Claim 12, further determining distances to the  $N$  second pronunciation variants based at least on the processed  $N$  second phoneme sequences.

15. (Previously Presented) The method according to Claim 14, further comprising a step of classifying each  $N$  second phoneme sequences to identify respective distances.

16. (Previously Presented) The method according to Claim 15, further comprising a step of eliminating any  $N$  second phoneme sequences that do not exceed a predetermined threshold.

17. (Previously Presented) The method according to Claim 16, wherein the distances are Leveshtein distances.

18. (Previously Presented) The method according to Claim 12, further comprising the step of determining probabilities that each word for  $N$  various languages not specified as the mother tongue belong to a specified set of languages, said step of determining probabilities occurring before step (a).

19. (Previously Presented) The method according to Claim 18, further comprising the step of eliminating languages from said specified set that do not exceed a predetermined threshold.

20. (Previously Presented) The method according to Claim 12, wherein the step of determining the phonetic transcripts of each word for  $N$  various languages not specified as the mother tongue is performed by at least one neural network.

21. (Previously Presented) The method according to Claim 12, wherein processing said  $N$  second phoneme sequences with the phoneme set associated with the language specified as a mother tongue is performed using a Hidden Markov Model.

22. **(Currently Amended)** An automatic language recognizing apparatus, including computer program modules encoded in tangible, non-transitory computer readable media associated with a mobile device, the computer program modules comprising:

a mother tongue language recognizer, said recognizer storing a phoneme set of a predetermined mother tongue;

a first processing module for determining phonetic transcripts for each word of a plurality of words from  $N$  various languages in order to obtain  $N$  first phoneme sequences for each word corresponding to  $N$  first pronunciation variants, each of the  $N$  first phoneme sequences formed from phonemes associated with one of the  $N$  different languages;

a second processing module for implementing a mapping of first phoneme sequence of each of  $N$  various languages to a particular phoneme set of the mother tongue;

a third processing module for applying the implemented mapping of phonemes to translate the  $N$  first phoneme sequences for each word determined by means of the first processing module into  $N$  second phoneme sequences corresponding to  $N$  second pronunciation variants being obtained for each word, the  $N$  second phoneme sequences formed from phonemes associated with the mother tongue language and being recognized by the mother tongue language recognizer;

wherein the third processing module translates each of the  $N$  first phoneme sequences of the  $N$  various language into a corresponding second phoneme sequence of the mother tongue language (a) regardless of whether the mobile device includes a speech model for each of the  $N$  various languages, and (b) regardless of whether the mother tongue language is the most acoustically similar to each of the  $N$  various languages, with respect to the respective first and second phoneme sequences, and

such that for each word, two different phonetic transcripts are generated for each of the  $N$  different languages, including (1) the  $N$  first phoneme sequences for the word, each formed from phonemes associated with one of the  $N$  different languages, and (2) the  $N$  second phoneme sequences for the word, each formed by applying the phoneme map to translate one of the  $N$  first

phoneme sequences formed from phonemes associated with one of the  $N$  different languages into a sequence of phonemes associated with the mother tongue language; and

a fourth processing module for creating a language recognizable vocabulary with the  $N$  second phoneme sequences for each word, obtained by the third processing module, for the mother tongue language recognizer.

23. (Previously Presented) The automatic language recognizing apparatus according to claim 22, further comprising a fifth processing module for processing the  $N$  second phoneme sequences corresponding to the  $N$  second pronunciation variants of each word to obtain distances for each  $N$  second phoneme sequence.

24. (Previously Presented) The automatic language recognizing apparatus according to claim 23, wherein said distances are Levenshtein distances.

25. (Previously Presented) The automatic language recognizing apparatus according to claim 24, wherein the  $N$  second phoneme sequence distances not exceeding a predetermined threshold are eliminated from further processing.

26. (Previously Presented) The automatic language recognizing apparatus according to claim 22, further comprising a language identifier, coupled to the first processing module, wherein the language identifier determines a probability of each word belonging to each of the  $N$  various languages.

27. (Previously Presented) The automatic language recognizing apparatus according to claim 26, further comprising a language reducer that reduces the number of languages from the first processing module to be processed if said probability does not exceed a predetermined thresholds.

28. (Previously Presented) The automatic language recognizing apparatus according to claim 22, wherein the first processing module comprises at least one neural network for determining the phonetic transcripts.

29. (Previously Presented) The automatic language recognizing apparatus according to claim 22, wherein the mother tongue language recognizer comprises a Hidden Markov model that has been created for the phoneme set of the predetermined mother tongue.